Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Urinary incontinence in older adults admitted to acute care. In: Evidence-based geriatric nursing protocols for best practice.

Bibliographic Source(s)

Dowling-Castronovo A, Bradway C. Urinary incontinence. In: Boltz M, Capezuti E, Fulmer T, Zwicker D, editor(s). Evidence-based geriatric nursing protocols for best practice. 4th ed. New York (NY): Springer Publishing Company; 2012. p. 363-87.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Dowling-Castronovo A, Bradway C. Urinary incontinence (UI) in older adults admitted to acute care. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008. p. 309-36.

Recommendations

Major Recommendations

Levels of evidence (I–VI) are defined at the end of the "Major Recommendations" field.

Parameters of Assessment

- Document the presence or absence of urinary incontinence (UI) for all patients on admission (DuBeau et al., 2010 [Level I]).
- Document the presence or absence of an indwelling urinary catheter.
- For patients with presence of UI, the nurse collaborates with interdisciplinary team members to:
  - Determine whether the UI is transient, established (stress/urge/mixed/overflow/functional), or both and document (DuBeau et al., 2010 [Level I]; Fantl et al., 1996 [Level I]; Jayasekara, 2009 [Level I]; Johnson et al., 2001 [Level VI]).
  - Identify and document the possible etiologies of the UI (DuBeau et al., 2010 [Level I]; Fantl et al., 1996 [Level I]).

Nursing Care Strategies

General Principles That Apply to Prevention and Management of All Forms of UI

- Identify and treat causes of transient UI (DuBeau et al., 2010 [Level I]).
- Identify and continue successful prehospital management strategies for established UI.
- Develop an individualized plan of care using data obtained from the history and physical examination, and in collaboration with other team

members. Implement toileting programs as needed (Ostaszkiewicz, Johnston, & Roe, 2005 [Level I]; Rathnayake, "Urinary incontinence: timed voiding," 2009 [Level I]).
- Avoid medications that may contribute to UI (Newman & Wein, 2009 [Level I]).
- Avoid indwelling urinary catheters whenever possible to avoid the risk of urinary tract infection (UTI) (Bouza et al., 2001 [Level IV]; Dowd & Campbell, 1995 [Level IV]; Gould et al., 2009 [Level I]; Zimakoff et al., 1996 [Level IV]).
- Monitor fluid intake and maintain an appropriate hydration schedule.
- Limit dietary bladder irritants (Gray & Haas, 2000 [Level VI]).
- Consider adding weight loss as a long-term goal in discharge planning for those with a body mass index (BMI) greater than 27 (Subak et al., 2005 [Level II]).
- Modify the environment to facilitate continence (Fantl et al., 1996 [Level I]; Jirovec, 2000 [Level VI]; Palmer, 1996 [Level VI]).
- Provide patients with usual undergarments in expectation of continence, if possible.
- Prevent skin breakdown by providing immediate cleansing after an incontinent episode and utilizing barrier ointments (Ersser et al., 2005 [Level I]).
- Pilot test absorbent products to best meet patient, staff, and institutional preferences (Dunn et al., 2002 [Level I]), bearing in mind that adult briefs have been associated with UTIs (Zimakoff et al., 1996 [Level IV]).

Strategies for Specific Problems

Stress UI

- Teach pelvic floor muscle exercises (PFME) (DuBeau et al, 2010 [Level I]; Hodgkinson et al., 2008 [Level I]).
- Provide toileting assistance and bladder training PRN (whenever necessary) (DuBeau et al., 2010 [Level I]).
- Consider referral to other team members if pharmacological or surgical therapies are warranted.

Urge UI and Overactive Bladder (OAB)

- Implement bladder training (retraining) (DuBeau et al., 2010 [Level I]; Teunissen et al., 2004 [Level I]).
- If patient is cognitively intact and is motivated, provide information on urge inhibition (Gray, 2005 [Level VI]; Smith, 2000 [Level VI]).
- Teach PFME to be used in conjunction with bladder training, and instruct in urge inhibition strategies (Flynn, Cell, & Luisi, 1994 [Level IV]; Rathnayake, "Urinary incontinence: bladder training," 2009 [Level I]; Teunissen et al., 2004 [Level I]).
- Collaborate with prescribing team members if pharmacological therapy is warranted.
- Initiate referrals for those patients who do not respond to the aforementioned strategies.

Overflow UI

- Allow sufficient time for voiding.
- Discuss with interdisciplinary team the need for determining a post-void residual (PVR) (Newman & Wein, 2009 [Level VI]; Shinopulos, 2000 [Level VI]) (see Table 18.2 in the original guideline document).
- Instruct patients in double voiding and Crede's maneuver (Doughty, 2000 [Level VI]).
- If catheterization is necessary, sterile intermittent catheterization is preferred over indwelling catheterization (Saint et al., 2006 [Level II]; Terpenning, Allada, & Kauffaman, 1989 [Level IV]; Warren, 1997 [Level VI]).
- Initiate referrals to other team members for patients requiring pharmacological or surgical intervention.

Functional UI

- Provide individualized, scheduled toileting, timed voiding, or prompted voiding (Eustice, Roe, & Paterson, 2005 [Level I]; Jirovec, 2000 [Level VI]; Lee, Cigolle, & Blaum, 2009 [Level IV]; Ostaszkiewicz, Johnston, & Roe, 2005 [Level I]).
- Provide adequate fluid intake.
- Refer for physical and occupational therapy PRN.
- Modify environment to maximize independence with continence (Fantl et al., 1996 [Level I]; Jirovec, 2000 [Level VI]; Jirovec, Brink, & Wells, 1988 [Level VI]; Palmer, 1996 [Level VI]).

Follow-up Monitoring

- Provide patient or caregiver discharge teaching regarding outpatient referral and management.
- Incorporate continuous quality improvement (CQI) criteria into existing program ("Assessing care of vulnerable elders," 2007 [Level V]; Fung et al., 2007 [Level I]).
- Identify areas for improvement and enlist multidisciplinary assistance in devising strategies for improvement.

Definitions:

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/consensus panels

AGREE Next Steps Consortium (2009). Appraisal of guidelines for research & evaluation II. Retrieved from http://www.agreetrust.org/?o=1397 .

Adapted from: Melnyck, B. M. & Fineout-Overholt, E. (2005). Evidence-based practice in nursing & health care: A guide to best practice. Philadelphia, PA: Lippincott Williams & Wilkins and Stetler, C.B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J., et al. (1998). Utilization-focused integrative reviews in a nursing service. Applied Nursing Research, 11(4) 195-206.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Urinary incontinence

Guideline Category

Evaluation

Management

Prevention

Treatment

Clinical Specialty

Family Practice

Geriatrics

Nursing

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Hospitals

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To provide a standard of practice protocol for nurses to:

- Utilize comprehensive assessment and implement evidence-based management strategies for patients identified with urinary incontinence (UI)
- Collaborate with interdisciplinary team members
- Ensure patients with UI will not have UI-associated complications

Target Population

Older adults admitted for acute care

Interventions and Practices Considered

Evaluation

1. Documentation of presence or absence of urinary incontinence (UI) on admission
2. Determination of presence or absence of indwelling catheter and appropriate catheter use
3. Collaboration with interdisciplinary team to determine type of UI and possible etiologies

Treatment/Management

1. General principles of prevention and management of all types of UI
    - Identification and treatment of causes
    - Individualized plan of care
    - Avoidance of contributing factors: medications, indwelling urinary catheters, bladder irritants, hydration status, overweight, environmental factors
    - Prevention of skin breakdown
2. Strategies for specific problems (stress, urge, overflow, and functional UI)
    - Pelvic floor muscle exercises (PFME)
    - Toileting assistance and bladder training
    - Referral for pharmacological, surgical, or physical therapies as warranted
    - Information on urge inhibition
    - Sufficient time for voiding
    - Scheduled or prompted voiding
    - Catheterization
    - Double voiding and Crede's maneuver
    - Adequate fluid intake

Major Outcomes Considered

Episodes or complications associated with urinary incontinence (UI)

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Although the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument (described in Chapter 1 of the original guideline document, *Evidence-based Geriatric Nursing Protocols for Best Practice*, 4th ed.) was created to critically appraise clinical practice guidelines, the process and criteria can also be applied to the development and evaluation of clinical practice protocols. Thus, the AGREE instrument has been expanded (i.e., AGREE II) for that purpose to standardize the creation and revision of the geriatric nursing practice guidelines.

The Search for Evidence Process

Locating the best evidence in the published research is dependent on framing a focused, searchable clinical question. The PICO format—an acronym for population, intervention (or occurrence or risk factor), comparison (or control), and outcome—can frame an effective literature search. The editors enlisted the assistance of the New York University Health Sciences librarian to ensure a standardized and efficient approach to collecting evidence on clinical topics. A literature search was conducted to find the best available evidence for each clinical question addressed. The results were rated for level of evidence and sent to the respective chapter author(s) to provide possible substantiation for the nursing practice protocol being developed.

In addition to rating each literature citation as to its level of evidence, each citation was given a general classification, coded as "Risks," "Assessment," "Prevention," "Management," "Evaluation/Follow-up," or "Comprehensive." The citations were organized in a searchable database for later retrieval and output to chapter authors. All authors had to review the evidence and decide on its quality and relevance for inclusion in their chapter or protocol. They had the option, of course, to reject or not use the evidence provided as a result of the search or to dispute the applied level of evidence.

Developing a Search Strategy

Development of a search strategy to capture best evidence begins with database selection and translation of search terms into the controlled vocabulary of the database, if possible. In descending order of importance, the three major databases for finding the best primary evidence for most clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. In addition, the PsycINFO database was used to ensure capture of relevant evidence in the psychology and behavioral sciences literature for many of the topics. Synthesis sources such as UpToDate® and British Medical Journal (BMJ) Clinical Evidence and abstract journals such as Evidence Based Nursing supplemented the initial searches. Searching of other specialty databases may have to be warranted depending on the clinical question.

It bears noting that the database architecture can be exploited to limit the search to articles tagged with the publication type "meta-analysis" in Medline or "systematic review" in CINAHL. Filtering by standard age groups such as "65 and over" is another standard categorical limit for narrowing for relevance. A literature search retrieves the initial citations that begin to provide evidence. Appraisal of the initial literature retrieved may lead the searcher to other cited articles, triggering new ideas for expanding or narrowing the literature search with related descriptors or terms in the article abstract.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/consensus panels

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Adapted from: Melnyck, B. M. & Fineout-Overholt, E. (2005). Evidence-based practice in nursing & health care: A guide to best practice. Philadelphia, PA: Lippincott Williams & Wilkins and Stetler, C.B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J., et al. (1998). Utilization-focused integrative reviews in a nursing service. Applied Nursing Research, 11(4) 195-206.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Not stated

Evidence Supporting the Recommendations

References Supporting the Recommendations

Assessing care of vulnerable elders-3 quality indicators. J Am Geriatr Soc. 2007 Oct;55(Suppl 2):S464-87. PubMed

Bouza E, San Juan R, Munoz P, Voss A, Kluytmans J, Co-operative Group of the European Study Group on Nosocomial Infections. A European perspective on nosocomial urinary tract infections II. Report on incidence, clinical characteristics and outcome (ESGNI-004 study). European Study Group on Nosocomial Infection. Clin Microbiol Infect. 2001 Oct;7(10):532-42. PubMed

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Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for selected recommendations (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Patient

Fewer or no episodes of urinary incontinence (UI) or complications associated with UI

Nurse

- Documentation of assessment of continence status at admission and throughout hospital stay. If UI is identified, documentation and determination of type of UI
- Use of interdisciplinary expertise and interventions to assess and manage UI during hospitalization
- Inclusion of UI in discharge planning needs and referral as needed

Institution

- Decreased incidence and prevalence of transient UI
- Hospital policies that require assessment and documentation of continence status
- Improved administrative support and ongoing education of staff regarding assessment and management of UI

Potential Harms

Not stated

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Chart Documentation/Checklists/Forms

Mobile Device Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Dowling-Castronovo A, Bradway C. Urinary incontinence. In: Boltz M, Capezuti E, Fulmer T, Zwicker D, editor(s). Evidence-based geriatric nursing protocols for best practice. 4th ed. New York (NY): Springer Publishing Company; 2012. p. 363-87.

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2003 (revised 2012)

Guideline Developer(s)

Hartford Institute for Geriatric Nursing - Academic Institution

Guideline Developer Comment

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE) project, under sponsorship of the Hartford Institute for Geriatric Nursing, New York University College of Nursing.

Source(s) of Funding

Hartford Institute for Geriatric Nursing

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Dowling-Castronovo A, Bradway C. Urinary incontinence (UI) in older adults admitted to acute care. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008. p. 309-36.

Guideline Availability

Electronic copies: Available from the Hartford Institute for Geriatric Nursing Web site .

Copies of the book *Evidence-Based Geriatric Nursing Protocols for Best Practice*, 4th edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com .

Availability of Companion Documents

The following are available:

- *Try This*® - issue 11.1: Urinary incontinence assessment in older adults, Part I: transient urinary incontinence. New York (NY): Hartford Institute for Geriatric Nursing; 2 p. 2012. Electronic copies: Available in Portable Document Format (PDF) from the Hartford Institute of Geriatric Nursing Web site .
- *Try This*® - issue 11.2: Urinary incontinence assessment in older adults, Part II: persistent (established) urinary incontinence. New York (NY): Hartford Institute for Geriatric Nursing; 2 p. 2013. Electronic copies: Available in PDF from the Hartford Institute of Geriatric

Nursing Web site .

- Assessment of transient urinary incontinence in older adults. How to Try This video. Available from the Hartford Institute for Geriatric Nursing Web site .

The ConsultGeriRN app for mobile devices is available from the Hartford Institute for Geriatric Nursing Web site .

Patient Resources

None available

NGC Status

This summary was completed by ECRI on February 2, 2004. The information was verified by the guideline developer on February 26, 2004. This NGC summary was updated by ECRI Institute on November 13, 2008. The updated information was verified by the guideline developer on November 20, 2008. This NGC summary was updated by ECRI Institute on June 26, 2013. The updated information was verified by the guideline developer on August 6, 2013.

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